**Greater Cleveland Council of Teachers of Mathematics**

**RICH TASK PROCESSING TEMPLATE**

**Mathematics II**

**Name of Resource:**

**Submitted by: Source (book, website, etc.):**

**CCSS-M Content Alignment:**

Not all clusters require equal emphasis of instructional time. Which cluster(s) does this resource address?

|  |  |
| --- | --- |
| **✓ Check all that apply.** | **Cluster** |
|  | **The Real Number System (N-RN)** |
|  | Extend the properties of exponents to rational exponents (1, 2) |
|  | Use properties of rational and irrational numbers (3)**.** |
|  | **Quantities****(N-Q)** |
|  | Reason quantitatively and use units to solve problems (2) |
|  | **The Complex Number System (N-CN)** |
|  | Perform arithmetic operations with complex numbers (1, 2) |
|  | Solve quadratic equations with real coefficients that have complex solutions (7) |
|  | **Seeing Structure in Expressions (A-SSE)** |
|  | Interpret the structure of expressions (1, 2) |
|  | Write expressions in equivalent forms to solve problems (3) |
|  | **Arithmetic with Polynomials and Rational Expressions (A-APR)** |
|  | Perform arithmetic operations on polynomials (1) |
|  | **Creating Equations****(A-CED)** |
|  | Create equations that describe numbers or relationships (1, 2, 4) |
|  | **Reasoning with Equations and Inequalities (A-REI)** |
|  | Understand solving equations as a process of reasoning and explain the reasoning (1) |
|  | Solve equations and inequalities in one variable (4) |
|  | Solve systems of equations (7) |
|  | **Interpreting Functions (F-IF)** |
|  | Interpret functions that arise in applications in terms of the context (4, 5, 6) |
|  | Analyze functions using different representations (7, 8, 9) |
|  | **Building Functions (F-BF)** |
|  | Build a function that models a relationship between two quantities (1) |
|  | Build new functions from existing functions (3) |
|  | **Similarity, Right Triangles, and Trigonometry (G-SRT)** |
|  | Understand similarity in terms of similarity transformations (1, 2, 3) |
|  | Prove theorems using similarity (4, 5) |
|  | Define trigonometric ratios and solve problems involving right triangles (6, 7, 8) |
|  | **Geometric measurement and dimension (G-GMD)** |
|  | Explain volume formulas and use them to solve problems (1, 3) |
|  | **Interpreting categorical and quantitative data (S-ID)** |
|  | Summarize, represent, and interpret data on two categorical and quantitative variables (6) |
|  | **Conditional Probability and Rules of Probability (S-CP)** |
|  | Understand independence and conditional probability and use them to interpret data (1, 2, 3, 4, 5) |
|  | Use the rules of probability to compute probabilities of compound events in a uniform probability model (6, 7) |

Major Cluster Supporting Cluster Additional Cluster

If possible, cite the specific standards (e.g. S-CP.3) that this resource addresses:

**Standards for Mathematical Practice (SMP) Alignment:**

PARCC Assessments will measure not only content, but the SMP as well. Not all SMP are addressed in every task/lesson. Which SMP does this resource address?

**✓ Check all that apply.**

|  |  |  |
| --- | --- | --- |
| Overarching |  | 1. Make sense of problems and persevere in solving them. |
|  | 6. Attend to precision. |
| Reasoning |  | 2. Reason abstractly and quantitatively. |
|  | 3. Construct viable arguments and critique the reasoning of others. |
| Modeling |  | 4. Model with Mathematics. |
|  | 5. Use appropriate tools strategically. |
| Finding Structure |  | 7. Look for and make use of structure. |
|  | 8. Look for and express regularity in repeated reasoning. |

**Assessing SMP:** Measuring the SMP can be challenging. List specific evidence of the SMP that this resource addresses. (What are your students doing or saying?)

**Content Focus Alignment:** Rich tasks have “mathematical stretch,” making them useful across several grade levels. It is important, however, to note the mathematics that aligns this task to appropriate grade level work. This is best understood by also noting the mathematics in the grade level prior and after.

Mathematics in this resource that relates to Mathematics II:

How could this resource be adapted specifically Grade 8 or Mathematics I work?

How could this resource be adapted for Mathematics III or other advanced work?

Additional ideas to consider with this resource include: